Engineering

Bachelor of Engineering (Honours) / Computer Science (3785)

Chemical Engineering (CEICAH) / Computer Science (COMPA1) T1 Entry 2024 Sample Plan



Year 1	
	COMP1511 Programming Fundamentals
Term 1	CHEM1811 Engineering Chemistry 1 A
	COMP1521 Computer Systems Fundamentals
	MATH1131 ① Mathematics 1A
Term 2	PHYS1121@ Physics 1A
	CHEM1821 Engineering Chemistry 1B
Term 3	DESN1000 Introduction to Engineering Design and Innovation
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B
	Breadth Elective

	Year 2
Term 1	COMP1531 Software Engineering Fundamentals
	CEIC2000 Material and Energy Systems
	CEIC2001 Fluid and Particle Mechanics
Term 2	COMP2521 Data Structures and Algorithms
	CEIC2002 Heat and Mass Transfer
	MATH2089 Numerical Methods and Statistics
Term 3	CEIC2007 Chemical Engineering Lab A
	DESN2000 Engineering Design and Professional Practice

	Year 3
	MATH2019 Engineering Mathematics 2E
Term 1	CEIC3000 Process Modelling and Analysis
	COMP2511 Object-Oriented Design and Programming
	CEIC2005 Chemical Reaction Engineering
Term 2	COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis
	Computing Elective
Term 3	CEIC3001 Advanced Thermodynamics and Separation
	COMP3900 Computer Science Project

	Year 4
	CEIC3004 Process Equipment Design
Term 1	CEIC3005 Process Plant Design
	CEIC3006 Process Dynamics and Control
Term 2	CEIC3007 Chemical Engineering Lab B
	Computing Elective
Term 3	CEIC4000 Environment and Sustainability
	COMP4920 Professional Issues and Ethics in Information Technology
	Computing Elective

	Year 5
	CEIC4951 Research Thesis A
Term 1	CEIC4001 Process Design Project
	CEIC4952 Research Thesis B
Term 2	Computing Elective
	Computing Elective
	CEIC4953 Research Thesis C
Term 3	Disciplinary Elective
	Computing Elective

NOTES

This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.

①Students can take MATH1131 or MATH1141 depending on term offerings ②Students can take PHYS1121 or PHYS1131 depending on term offerings

Bachelor of Engineering (Honours) / Computer Science (3785)

Chemical Engineering (CEICAH) / Computer Science (COMPA1) T2 Entry 2024 Sample Plan



	Year1
	COMP1511 Programming Fundamentals
Term 2	CHEM1821 Engineering Chemistry 1 B
	MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A
Term 3	PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A
	DESN 1000 Introduction to Engineering Design and Innovation
	CHEM1811 Engineering Chemistry 1A
Term 1	MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B
	COMP1521 Computer Systems Fundamentals

	Year 2	
	DESN2000 Engineering Design and Professional Practice	
Term 2	COMP1531 Software Engineering Fundamentals	
	COMP2511 Object-Oriented Design and Programming	
Term 3	MATH2089 Numerical Methods and Statistics	
	CEIC2007 Chemical Engineering Lab A	
Term 1	CEIC2000 Material and Energy Systems	
	CEIC2001 Fluid and Particle Mechanics	
	MATH2019 Engineering Mathematics 2E	

Year 3	
	CEIC2002 Heat and Mass Transfer
Term 2	CEIC2005 Chemical Reaction Engineering
	Computing Elective
Term 3	COMP4920 Professional Issues and Ethics in Information Technology
	COMP3900 Computer Science Project
	COMP2521 Data Structures and Algorithms
Term 1	COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis
	CEIC3000 Process Modelling and Analysis

	Year 4
Term 2	CEIC4000 Environment and Sustainability
	CEIC3006 Process Dynamics and Control
	CEIC3007 Chemical Engineering Lab B
Term 3	CEIC3001 Advanced Thermodynamics and Separation
	Disciplinary Elective
Term 1	CEIC3004 Process Equipment Design
	CEIC3005 Process Plant Design
	Computing Elective

	Year 5
	CEIC4951 Research Thesis A
Term 2	Computing Elective
	Breadth Elective
	CEIC4952 Research Thesis B
Term 3	Computing Elective
	Computing Elective
	CEIC4953 Research Thesis C
Term 1	CEIC4001 Process Design Project

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Engineering

Bachelor of Engineering (Honours) / Computer Science (3785)

Chemical Engineering (CEICAH) / Computer Science (COMPA1) T3 Entry 2024 Sample Plan



Year 1	
Term 3	COMP1511 Programming Fundamentals
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A
	MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A
Term 1	MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B
	COMP1531 Software Engineering Fundamentals
	CHEM1811 Engineering Chemistry 1A
Term 2	COMP1521 Computer Systems Fundamentals
	CHEM1821 Engineering Chemistry 1B

	Year 2
Term 3	DESN1000 Introduction to Engineering Design and Innovation
	MATH2089 Numerical Methods and Statistics
	MATH2019 Engineering Mathematics 2E
Term 1	CEIC2000 Material and Energy Systems
	CEIC2001 Fluid and Particle Mechanics
Term 2	COMP2521 Data Structures and Algorithms
	CEIC2002 Heat and Mass Transfer
	CEIC2005 Chemical Reaction Engineering

Year 3		
Term 3	CEIC3001 Advanced Thermodynamics and Separation	
	CEIC2007 Chemical Engineering Lab A	
	DESN2000 Engineering Design and Professional Practice	
Term 1	CEIC3004 Process Equipment Design	
	CEIC3000 Process Modelling and Analysis	
	COMP2511 Object-Oriented Design and Programming	
Term 2	COMP3900 Computer Science Project	
	Breadth Elective	

Year 4		
Term 3	Computing Elective	
	Computing Elective	
Term 1	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis	
	CEIC3005 Process Plant Design	
	COMP4920 Professional Issues and Ethics in Information Technology	
Term 2	CEIC3006 Process Dynamics and Control	
	CEIC3007 Chemical Engineering Lab B	
	CEIC4000 Environment and Sustainability	

	Year 5
Term 3	CEIC4951 Research Thesis A
	Disciplinary Elective
	Computing Elective
Term 1	CEIC4952 Research Thesis B
	CEIC4001 Process Design Project
Term 2	CEIC4953 Research Thesis C
	Computing Elective
	Computing Elective

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